

In re Patent Application of:

WILSON ET AL

Serial No. **10/647,558**

Filed: **08/25/2003**

In the Specification:

Please replace **the title** with the following amended title:

"TRANSMITTER WITH LASER MONITORING AND WAVELENGTH STABILIZATION CIRCUIT"

Please replace the identified paragraphs of the original specification with the following amended paragraphs:

[0009] In accordance with this invention, it has been found that comparing a voltage provided by the forward biased diode to a compensated voltage stored in memory related to the outside temperature about the package ~~or~~ and related to the power of the laser diode, provides more accurate results and an output diode laser signal having a more stable wavelength.

[0016] switching means for changing a bias on the photodetector between forward bias mode and reverse bias mode, whereby the photodetector provides an indication of the output power of the light source output signal when the photodetector is in the reverse bias mode, and a signal that is related to the temperature and output power of the light source when the photodetector is in the forward bias mode; a temperature sensor disposed outside of the package for providing a signal indicating an ambient temperature about the package;

[0017] a feedback circuit utilizing the indication of the output power from the photodetector and the signal indicating the ambient temperature from the temperature sensor to form a power control signal to send a feedback signal to adjust the output power of the

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light source, and utilizing the signal related to the temperature of the light source from the photodetector and the signal indicating the ambient temperature from the temperature sensor to form a temperature control signal for adjusting the temperature of the light source thereby adjusting the wavelength thereof; and,

[0018] a memory circuit operationally coupled to the feedback circuit and the temperature sensor for storing a look-up table comprising a plurality of stored values, said stored values accounting for the light from the light source coupled to the photodetector when it is forward biased and corresponding to control voltages for adjusting the feedback temperature control signal at a plurality of different ambient temperatures about the package and maintaining the wavelength of the light source substantially constant at the wavelength W_s , when the power of the light source changes and/or when the temperature about the light source changes.